

Knowledge Economy in the content of education, research and consulting at the faculties of economics

Znalostná ekonomika v obsahu vzdelávania, výskumu a poradenstva na ekonomických fakultách

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Abstract: Knowledge Economy is an education related to the declaration and contents of the Lisbon Strategy – The Perfect Europe and a follow up strategy of the competitiveness of member states of the EU by the year 2010. The term knowledge economy can be defined as “an education about problems of upbringing and educating students, a professional education of managers and population, an education about strategies of being competitive as well as an education about reality and contents of innovating an information society”. The application of the Knowledge Economy in the content of education into research and workplace consulting enriches economic theories as well as gradation of agrarian economic in the field of competitiveness and information technology. The Knowledge Economy means a world repute and maximalisation of international relations and at the same time a vision of catching up with the leaders of world economies. Present educational systems, a general and specific education of new member states, is short-sightedly oriented at regional and local education with the effort to educate “an euroengineer, an eurodoctor, etc.” into the expansion of new faculties and their entitling as “European studies, integration studies, some subjects are also innovated with a modified agrarian and business union politics”, which I myself consider to be an “educational lag behind” which is the antithesis to the attributes of catching up with the more developed.

Key words: knowledge economy, education, research and development, segmentation of commodity trade, competitiveness, information society, social excellence

Abstrakt: Znalostná ekonomika je vzdelávanie súvisiace s deklaráciou a obsahom Lisabonskej stratégie – Dokonalá Európa a na ňu naväzujúcej stratégie konkurencie schopnosti členských štátov EÚ do roku 2010. Znalostnú ekonomiku je možné definovať ako „vzdelávanie o problematike výchovy študentov, profesnej výchovy manažérov a obyvateľstva, vzdelávanie o stratégiách konkurencie schopnosti a vzdelávanie o realite a obsahu zdokonaľovania informačnej spoločnosti“. Aplikácia Znalostnej ekonomiky v obsahu výučby predmetov a špecializácií do výskumu a poradenstva pracovísk prináša obohatenie ekonomických teórií a gradáciu agrárnej ekonomiky v oblasti konkurencie schopnosti a informačnej technologickej dokonalosti. Znalostná ekonomika znamená svetovosť a maximalizáciu medzinárodných vzťahov a zároveň víziu dobiehania lídrov svetovej ekonomiky. Vzdelávacie súčasné systémy, všeobecné a špecifické vzdelávanie novovstúpivších krajín sa krátkozrako orientuje na regionálno-lokálnu výchovu so snahou vychovať „euroinžiniera, eurodoktora“, atď. v expanze nových fakúlt v ich pomenovaní ako „Európske štúdie, integračné štúdie a niekdajšie, so svetom komunikatívne predmety s prívlastkom agrárne a obchodné úniové politiky“ atď., čo považujem za edukačné spiatočníctvo, ktoré je v protiklade atribútov dobiehania vyspelejších.

Klíčové slová: znalostná ekonomika, vzdelávanie, výskum a inovácia, segmentácia komoditného obchodu, konkurencie schopnosť, informačná spoločnosť, sociálna dokonalosť

INTRODUCTION

Macroeconomic characteristics of Europe have been decreasing in the last decade, public and private in-

vestments insufficiently stimulate the growth of GDP. Household and public consumption differs a lot among the European countries and any growth to come is a reaction on foreign demand. Macroeconomic pa-

rameters and positions of the EU are at the standstill, and they lag behind the more developed US economy. Despite the mentioned facts, Europe is still considered to have good university education, complex research, appropriate quality of life and social security and environmental stability in solving the problems of the existence of mankind.

MATERIAL AND METHODOLOGY

Our paper is oriented at examining the attributes which are related to the contents of Knowledge Economy, their direction at the problems of educating students and population, professional education of managers, support of research and science, perfection of the information society, and strategies of national and entrepreneurial competitiveness.

The preferred material related to the topic of our paper was defined in the Lisbon strategies – Perfect Europe – its implementation at the national level among countries, and the Strategies of Competitiveness of Slovakia by the year 2010. The World Economic Forum – Report on Global Competitiveness – was given an importance as well.

Knowledge Economy prefers education of human resources and research, concentrates on strategies of competitiveness and its enhancement by the contents of information society. Not many papers have been written about the topic of Knowledge Economy. The following authors are quoted in the paper: after the year 2002, the topic of competitiveness of knowledge and new economy is discussed by Koski, Rouvinin (2003), Jeníček (2000), Bielik (2004). In attributes of the world competitiveness with the application on commodity and international trade Podolák, Serenčěš (2003), Podolák (2004), Matušková (2003), in attributes of information society Vorokošová (2002), informatization of the resort Hennyeyová (2004) and in the analysis of comparative profitability and environment bias Kuzma (2003), etc.

From the methodological viewpoint, the indicators of quantifying the world competitiveness are applied in our paper:

- index of comparative advantages and specializations (RCA, RCA 1, RCA 2),
- index of global world competitiveness (WCI),
- index of competitiveness growth (GCI),
- index of entrepreneurial environment and competitiveness of companies (IPP),
- index of economic freedom,
- index of defining the absolute and relative margins of poverty,
- index of information society (ISI).

RESULTS AND DISCUSSION

The Lisbon Strategy judged by a cognitive economy defines an economic and environmental-social model, through which the vision of a Perfect Europe is created. Europe has picked up a direct way of competitiveness, a constant intensification of index value of information society enhanced by an intensification of the education of citizens, pupils, students and managers at all levels of management.

Europe has picked up so-called north model as one of the most successful alternatives, standing for the combination of economic competitiveness with social security and environmental stability bias. The report on global competitiveness – the world economic forum (year 2004–2005) ranges the three north European countries (Sweden, Denmark, Finland) among the first five most competitive countries of the world economy. These countries declare high charge of tax, a strong public sector, high incomes of inhabitants, sufficient social benefits, high social security, a developed job market, educational support (lifelong), battle against discrimination, etc. These countries have the highest expenses on research and science as well as a technological innovation acceptable for stability of the environment within and out of the EU.

The complex education of human resources and the educated work force is prioritized by Lisbon strategy – Perfect Europe in Knowledge Economy. It also speeds up the increase of research and innovation tendencies. Education is the most important strategy as well as the basic attribute of sustainable economic growth. The strategy declares that the increase of the average education by one year represents, in the short term, almost 56 per cent increase of productivity.

Expenses on education in the EU countries (year 2000) represented 4.9% share in GDP and markedly fall behind the USA.

Education in the Knowledge Economy focuses on quantification of the electronic competitiveness – *Index of the Information Society* – evaluating the ability of a country to take part in information processes and changes as well as an ability to absorb information and exploit information technologies. The ISI index contains: computer infrastructure, information infrastructure, Internet infrastructure and social structure. It is necessary for the ISI to be observed in the agri-education and the agri-resort.

The Lisbon Summit in a knowledge economy declares establishment of the European research space, foundation of the European research committee and fortification of the coordinated all European and higher research. It also declares creation of top research

centres and by the year 2010 new research workers will have been hired. The Lisbon Strategy declares a significant increase of expenses on research and innovations, which represented only 2% from GDP in the EU (2000), 3–4% in Finland and Sweden, 1.04% in Slovakia and 1.2% in the Czech Republic. The present disparity in expenses on education and research is even higher. Finland has got the most effective model of education (mostly university education). The OECD warns that in the future the disparity of expenses per student at school will graduate, in Finland, Sweden and Denmark it represents 7 000–8 000 US dollars, while in Slovakia, Poland, Hungary and the Czech Republic only 2 000–3 000 US dollars. A great disparity can be seen in the salaries of teachers, their high age and other attributes as well. Slovakia runs into a high index of secondary education in the EU (3rd position), which means that about 85% of adults have completed their A-level exams. In Germany, it is about 83%, in Finland 75%, in Hungary 71%, ... and in Portugal only 20%. Positive is the fact that almost 18.3% of population is in the preproductive age, more than 70% in productive (the most of all EU countries), which is considered to be a good precondition for further education. The declared aim – 3% of GDP invested into research and 2% into higher education – is not meeting the obligations of the Lisbon Summit set five years ago. The Knowledge Economy is not covered in the tasks of a strategic research in the Slovak Republic.

The priority attribute of the Knowledge Economy is to educate students and managers in competitiveness. A more complex methodological innovation and more balanced quantification is needed as well. The methodology of competitiveness is related to the international trade with third world countries and the internal trade with the member states of the EU so assumptions for more objective quantification of competitiveness are formed.

Commodity groups of products rank among four segments on the basis of the evaluation of the total exports and imports and acquired unitary prices:

1. segment – quality competition – export is higher than import, and, at the same time, the unit price of export is higher than the import price,
2. segment – competitiveness – export is lower than an import and the prize heads towards trade deficit
3. segment – prize competition – export is higher than import, but the export unit prize is lower than the one of import and the active trade balance is guaranteed,
4. segment – structural problem – export is lower than import and at the same time, the unit prize of export is lower than import so that deficit is

reached – it shows importance of innovation and the change of production structures.

Gradation of educating competitiveness in the Knowledge Economy is enhanced by the problem of the New Economy, so-called the electronic economy, in short e-Economy, which is a communication environment of electronically trading entrepreneurial subjects.

The strategy of competitiveness in the Knowledge Economy is quantified by the indicator RCA – commodity trade bias, the indicator RCA I (growth index of competitiveness) and RCA II (the indicator of pure trade productivity) with the application on territorial trade.

Commodity competitiveness of the agri-trade in the Slovak Republic is connected with the segmentation of the 2nd and 4th group with the significant trade deficiency and a minimum chance of innovation, so that it causes changes of production and business structure. It is a pity that the Slovak economic policy ignores the academic quantification of the competitiveness of agritrade commodities (e.g. malt).

The Knowledge Economy prefers the reality of competitiveness and makes a chance for its further growth. New member states of the EU are, at the moment, at the first stage of competitiveness, where comparative advantages are based on the so-called cheap workforce and on the disponibility of natural resources and production factors. The report of the Economic Forum about global competitiveness presents the Index of Growth Competitiveness. 104 countries of the world economy (2004) are evaluated there. Finland takes the first position, Sweden 3rd, Denmark 5th, Slovakia 43rd, the Czech Republic 40th and Hungary 39th. The competitiveness of macroeconomic environment – Index of Company Competitiveness evaluates the level of entrepreneurial environment and company processes in the group of 103 countries of the world economy. Finland again takes the top-ranking position (2nd), Germany (3rd) and Sweden (5th), Slovakia (39th), Hungary (42nd)... etc.

In 2004, Slovakia was ranked to the 18th position of the most reformatory countries in the field of improvement of the entrepreneurial environment (lowering costs at the starting time of entrepreneurship, changes in business law, improving, credit possibilities, tax, etc.) by the World Bank.

So-called city states of Singapore (1st) and Hong-Kong (2nd) have been positively evaluated by the World Economic Forum over the years – Index of Economic Freedom. The index evaluates the participation of a state in the economy, the use of market principles of the world economy, monetary policy, liberalization of

foreign trade and financial markets, etc. Slovakia takes the 36th position in the field of economic openness, the 6th position among transforming countries.

The world economic forum evaluates germane entries about the position of countries on the world market and the Knowledge Economy educates about the Index of the World Competitiveness (WCI) with the analysis of efficiency of the economy (75 criterion), economy of the government (81 criterion) and in the infrastructure (96 criterion).

The Knowledge Economy also includes the education about poverty, which is a problem of the government administrative of both developed countries and those economically behind. The definition of the Index of Absolute and Relative Poverty identifies the absolute margin of poverty (1 dollar per person day in a parity of a purchase power) and the relative margin of poverty (population of a region by 60% of created GDP), e.g. the highest margin of poverty in Slovakia is reached by the east Slovakia region which is according to it one of ten poorest regions of Europe.

The Lisbon Strategy, and in the analogy a nation strategy of competitiveness as well, contain further areas of education of the Knowledge Economy with the the European Monetary Policy, European Investment Policy, financial basis for implementation of the strategy, problem of social perfection, environmental perfection, flexibility of job market other macroeconomic co-actions bias in the contents of the Knowledge Economy.

CONCLUSION

The Knowledge Economy presents an implementation of the Lisbon Strategy the aim of which is to educate students, population and provide a life long education. The Knowledge Economy with this kind of definition should have a steady position in academic education at the faculties of economics and their branches of study. A more complex approach in building up and using information and communication technologies and their quantifying influence on a more complex objectification strategy of competitiveness and permanently sustainable economic growth of society is needed to be implemented into the contents of the Knowledge economy. On the other hand, there is a contradiction that the contents and implementation of the national strategy of competitiveness in Slovakia, mainly a low transfer of funds and tools of their more effective promotion, lags behind the proclamation of the Knowledge Economy. It is necessary to respect the attributes of the Knowledge Economy in the contents of education of students, in

publication activities of teachers and projects and in research programmes. The areas are:

- Educating students and professional consultancy of educating agri-managers with the quality of education of human development bias, national and union requests of exploiting European agriculture and food industry, and mainly positions of agrarian policies of the OECD and the trade policy of WTO.
- Education heading towards improving the “Information Society” and quantifying the electronic competitiveness, with the ability to take part in resort and regional information processes and changes, and to exploit information technologies.
- To educate business managers for the strategy of production, technology and trade competition in the conditions of multifunctional agriculture of Europe, its inner trade and mainly possible chances for the third world countries
- Education in the attributes of the Knowledge Economy at the Faculty of Economics and Management should be aimed at further macroeconomic co-actions of the agrarian, business, financial and investment policies, social and environmental perfectness, flexibility of the graduates on the European job market and lowering poverty in Slovakia the in intentions of international relationships, world economy and the trade policy of the WTO.

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